

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/645,353
Source: IFW/b
Date Processed by STIC: 10/11/2006

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 10/11/2006

PATENT APPLICATION: US/10/645,353

TIME: 15:49:00

Input Set : A:\-79-1.APP

Output Set: N:\CRF4\10112006\J645353.raw

3 <110> APPLICANT: Kuttyavin, Igor V.
 4 Milesi, David
 5 Hoekstra, Merl
 6 Epoch Biosciences, Inc.
 8 <120> TITLE OF INVENTION: Abasic Site Endonuclease Assay
 10 <130> FILE REFERENCE: 17682A-007910US
 12 <140> CURRENT APPLICATION NUMBER: US 10/645,353
 13 <141> CURRENT FILING DATE: 2003-08-20
 15 <150> PRIOR APPLICATION NUMBER: US 60/405,642
 16 <151> PRIOR FILING DATE: 2002-08-21
 18 <160> NUMBER OF SEQ ID NOS: 17
 20 <170> SOFTWARE: PatentIn Ver. 2.1
 22 <210> SEQ ID NO: 1
 23 <211> LENGTH: 47
 24 <212> TYPE: DNA
 25 <213> ORGANISM: Artificial Sequence
 27 <220> FEATURE:
 28 <223> OTHER INFORMATION: Description of Artificial Sequence:hairpin
 29 substrate structure simulating probe-target
 30 nucleic acid-enhancer complex
 32 <220> FEATURE:
 33 <221> NAME/KEY: modified_base
 34 <222> LOCATION: (47)
 35 <223> OTHER INFORMATION: n = c modified by 3' tail
 36 2-(6-oxy-2-{2-[5-hydroxy-8-(oxy-methoxy-phosphoryloxy)-
 37 octylcarbamoyl]-ethyl}-3-oxo-3H-xanthen-9-yl)-benzoate
 38 (structure #2)
 40 <400> SEQUENCE: 1
 W--> 41 gccacattgg aagccaatgt ggcgggcaag gaccgaaggt ccttgc 47
 44 <210> SEQ ID NO: 2
 45 <211> LENGTH: 5
 46 <212> TYPE: PRT
 47 <213> ORGANISM: Artificial Sequence
 49 <220> FEATURE:
 50 <223> OTHER INFORMATION: Description of Artificial Sequence:flexible
 51 polypeptide chain probe-enhancer linker
 53 <400> SEQUENCE: 2
 54 Gly Ser Ser Ser Ser
 55 1 5
 58 <210> SEQ ID NO: 3
 59 <211> LENGTH: 24
 60 <212> TYPE: DNA
 61 <213> ORGANISM: Artificial Sequence

Cp8-6)

RAW SEQUENCE LISTING

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63 <220> FEATURE:
64 <223> OTHER INFORMATION: Description of Artificial Sequence:target
65     oligonucleotide
67 <400> SEQUENCE: 3
68 aatgtggcgg gcaaggaccg agtc                24
71 <210> SEQ ID NO: 4
72 <211> LENGTH: 11
73 <212> TYPE: DNA
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: Description of Artificial Sequence:11-mer probe
78     complementary to target oligonucleotide
80 <220> FEATURE:
81 <221> NAME/KEY: modified_base
82 <222> LOCATION: (1)
83 <223> OTHER INFORMATION: n = a modified by 5' conjugated quencher
84     phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-
85     phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-
86     3-yl ester methyl ester (structure #15)
88 <220> FEATURE:
89 <221> NAME/KEY: modified_base
90 <222> LOCATION: (11)
91 <223> OTHER INFORMATION: n = t modified by 3' tail of fluorescein (FAM) and linker
4,5-
92     dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-
93     phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-
94     oxo-3H-xanthen-9-yl)-benzoate (structure #8)
96 <400> SEQUENCE: 4
W--> 97 nctcggtcct n                11
100 <210> SEQ ID NO: 5
101 <211> LENGTH: 11
102 <212> TYPE: DNA
103 <213> ORGANISM: Artificial Sequence
105 <220> FEATURE:
106 <223> OTHER INFORMATION: Description of Artificial Sequence:enhancer
107     oligonucleotide for 1 base gap between target
108     oligonucleotide and duplexes of probe and enhancer
110 <400> SEQUENCE: 5
111 cccgccacat t                11
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 11
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial Sequence
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Description of Artificial Sequence:enhancer
121     oligonucleotide for 0 base gap between target
122     oligonucleotide and duplexes of probe and enhancer
124 <400> SEQUENCE: 6
125 gcccgccaca t                11
128 <210> SEQ ID NO: 7

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129 <211> LENGTH: 10
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
133 <220> FEATURE:
134 <223> OTHER INFORMATION: Description of Artificial Sequence:enhancer
135     oligonucleotide for 2 base gap between target
136     oligonucleotide and duplexes of probe and enhancer
138 <400> SEQUENCE: 7
139 ccgccacatt                                     10
142 <210> SEQ ID NO: 8
143 <211> LENGTH: 41
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Description of Artificial Sequence:41-mer fully
149     matched DNA target sequence
151 <400> SEQUENCE: 8
152 agtcacagtc ggtgccaatg tggcgggcaa ggaccgagtc g       41
155 <210> SEQ ID NO: 9
156 <211> LENGTH: 22
157 <212> TYPE: DNA
158 <213> ORGANISM: Artificial Sequence
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Description of Artificial Sequence:enhancer
162     oligonucleotide
164 <400> SEQUENCE: 9
165 gccacattgg caccgactgt ga                         22
168 <210> SEQ ID NO: 10
169 <211> LENGTH: 14
170 <212> TYPE: DNA
171 <213> ORGANISM: Artificial Sequence
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Description of Artificial Sequence:14-mer
175     oligonucleotide probe
177 <220> FEATURE:
178 <221> NAME/KEY: modified_base
179 <222> LOCATION: (1)
180 <223> OTHER INFORMATION: n = a modified by 5' conjugated quencher
181     phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-
182     phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-
183     3-yl ester methyl ester (structure #15)
185 <220> FEATURE:
186 <221> NAME/KEY: modified_base
187 <222> LOCATION: (14)
188 <223> OTHER INFORMATION: n = t modified by 3' tail of fluorescein (FAM) and linker
4,5-
189     dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-
190     phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-
191     oxo-3H-xanthen-9-yl)-benzoate (structure #8)
193 <400> SEQUENCE: 10

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RAW SEQUENCE LISTING

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W--> 194 nctcggtcct tgcn                                     14
197 <210> SEQ ID NO: 11
198 <211> LENGTH: 10
199 <212> TYPE: DNA
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: Description of Artificial Sequence:10-mer
204     oligonucleotide probe
206 <220> FEATURE:
207 <221> NAME/KEY: modified_base
208 <222> LOCATION: (1)
209 <223> OTHER INFORMATION: n = a modified by 5' conjugated quencher
210     phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-
211     phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-
212     3-yl ester methyl ester (structure #15)
214 <220> FEATURE:
215 <221> NAME/KEY: modified_base
216 <222> LOCATION: (10)
217 <223> OTHER INFORMATION: n = t modified by 3' tail of fluorescein (FAM) and linker
4,5-
218     dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-
219     phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-
220     oxo-3H-xanthen-9-yl)-benzoate (structure #8)
222 <400> SEQUENCE: 11
W--> 223 ngtccttgcn                                           10
226 <210> SEQ ID NO: 12
227 <211> LENGTH: 27
228 <212> TYPE: DNA
229 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: Description of Artificial Sequence:fragment of
233     target sequence around single nucleotide
234     polymorphism in human genomic DNA
236 <400> SEQUENCE: 12
237 aaagagacac ggacayatca atccatc                               27
240 <210> SEQ ID NO: 13
241 <211> LENGTH: 20
242 <212> TYPE: DNA
243 <213> ORGANISM: Artificial Sequence
245 <220> FEATURE:
246 <223> OTHER INFORMATION: Description of Artificial Sequence:asymmetric PCR
247     amplification forward primer
249 <400> SEQUENCE: 13
250 caaactttgt ccttggtcta                                       20
253 <210> SEQ ID NO: 14
254 <211> LENGTH: 20
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence:asymmetric PCR

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260      amplification reverse primer
262 <400> SEQUENCE: 14
263 ttctttttacc actccccctt                                20
266 <210> SEQ ID NO: 15
267 <211> LENGTH: 13
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence:complementary
273      target oligodeoxyribonucleotide (ODN)
275 <400> SEQUENCE: 15
276 caaggaccga gtc                                          13
279 <210> SEQ ID NO: 16
280 <211> LENGTH: 11
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial Sequence
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Description of Artificial
286      Sequence:oligodeoxyribonucleotide (ODN) probe
288 <220> FEATURE:
289 <221> NAME/KEY: modified_base
290 <222> LOCATION: (1)
291 <223> OTHER INFORMATION: n = a modified by 5' conjugated quencher
292      phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-
293      phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-
294      3-yl ester methyl ester (structure #15)
296 <220> FEATURE:
297 <221> NAME/KEY: modified_base
298 <222> LOCATION: (11)
299 <223> OTHER INFORMATION: n = t modified by 3' tail of fluorescein (FAM) and linker
4,5-
300      dichloro-2-(4,7-dichloro-6-oxy-2-{3-[4-hydroxy-2-(oxy-methoxy-
301      phosphoryloxymethyl)-pyrrolidin-1-yl]-3-oxo-propyl}-5-methyl-3-
302      oxo-3H-xanthen-9-yl)-benzoate (structure #8)
304 <400> SEQUENCE: 16
W--> 305 nctcggtcct n                                      11
308 <210> SEQ ID NO: 17
309 <211> LENGTH: 11
310 <212> TYPE: DNA
311 <213> ORGANISM: Artificial Sequence
313 <220> FEATURE:
314 <223> OTHER INFORMATION: Description of Artificial
315      Sequence:oligodeoxyribonucleotide (ODN) probe
317 <220> FEATURE:
318 <221> NAME/KEY: modified_base
319 <222> LOCATION: (1)
320 <223> OTHER INFORMATION: n = a modified by 5' conjugated quencher
321      phosphoric acid 1-(4-{[4-(2-chloro-4-nitro-phenylazo)-
322      phenyl]-methyl-amino}-butyryl)-5-hydroxymethyl-pyrrolidin-
323      3-yl ester methyl ester (structure #15)

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/645,353

DATE: 10/11/2006
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Input Set : A:\-79-1.APP

Output Set: N:\CRF4\10112006\J645353.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 47
Seq#:4; N Pos. 1,11
Seq#:10; N Pos. 1,14
Seq#:11; N Pos. 1,10
Seq#:16; N Pos. 1,11
Seq#:17; N Pos. 1

VERIFICATION SUMMARY

DATE: 10/11/2006

PATENT APPLICATION: US/10/645,353

TIME: 15:49:02

Input Set : A:\-79-1.APP

Output Set: N:\CRF4\10112006\J645353.raw

L:41 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0